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ABSTRACT

The proceedings from this colloquium on the assessment of outcomes of preschool programs include presentations on (1) what should be assessed; (2) how social and emotional development can be assessed; and (3) how language intervention outcomes are to be assessed. Notes regarding the major ideas expressed during the discussions are also included. (PCB)

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Occasional Paper No. 14

PROCEEDINGS: A COLLOQUIUM ON THE ASSESSMENT OF THE OUTCOMES OF PRESCHOOL PROGRAMS

Edited by

Robert W. Heath

PS 016830

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PROCEEDINGS:

A COLLOQUIUM ON THE ASSESSMENT OF THE OUTCOMES

OF PRESCHOOL PROGRAMS

I. Introduction

As part of a preschool development effort, a colloquium titled "Assessing Preschool Outcomes" was held at Kamehameha Schools in May, 1985. The colloquium addressed two questions: "What outcomes should be assessed?" and "How should we assess these outcomes?" A different panel discussed each of these two questions. A general discussion, involving the audience of about 40 research and development professionals, followed the panel presentations.

The two panels and the agenda were:

May 8, 1985

10:00 a.m. - 11:00 a.m.	Welcome: Tom Klein, Head of Evaluation Department CDEE KS/BE
	What Should be Assessed as Preschool Outcomes? (Panel discussion)
Chair:	**Richard N. Roberts,** Director of the Pre-Kindergarten Educational Program, CDEE KS/BE
	Janet Sumida, Director of Follow-Through, DOE
	Doris C. Crowell, Curriculum Researcher, KEEP, CDEE KS/BE
	Stephanie Feeney, Associate Professor, College of Education, Department of Curriculum and Instruction, University of Hawai'i
11:00 a.m. - 12:00 p.m.	Discussion with participants
12:00 p.m. - 1:00 p.m.	LUNCH

1:00 p.m. - 2:00 p.m.	How Should Preschool Outcomes be Assessed? (Panel discussion)
Chair:	**Dale Farran**, Head of the Department of Child Development, CDEE KS/BE
	Setsu Furuno, Director of the Resource Access Project of the Pacific, University of Hawai'i
	Chris Mehlan, Associate Director Program Evaluation and Planning, KS/BE
	Linda McCormick, Associate Professor of Special Education at the University of Hawai'i and Coordinator of the Early Childhood Education Graduate Teacher Preparation Program
	Paul Shook, District Manager, CTB/ McGraw-Hill
2:00 p.m. - 3:00 p.m.	Discussion with participants
3:00 p.m.	Conversation

Presentations were tape-recorded and transcribed. These transcriptions were sent to the speakers. They then returned manuscripts for compilation into these Proceedings. Though not all speakers returned manuscripts, we believe this set of papers and the "Notes from the Discussion" will be of considerable interest to research and program development workers both here at Kamehameha Schools/Bishop Estate and to our colleagues in early childhood education elsewhere.

II. What Should be Assessed as Preschool Outcomes?

Janet Sumida
Director of Follow Through
Department of Education

My sharing with you this morning is based on my experience with the Follow Through program in Hawai'i since 1978 along with related insights and knowledge gained about pre-kindergarten children. As I have reviewed literature on preschool education, I have attempted to validate such literature for myself by cross-checking with information and knowledge I have gained through work with children from grade K and above. Therefore, my sharing with you will consist of information gained about young children through literature and other sources relative to the scope of my knowledge and experience gained in my work as the director of the Hawai'i Follow Through program and as I have worked with colleagues involved in early childhood education in the national Follow Through program and our own statewide EPSS program since 1982.

Based on my work in the field of evaluation since graduate studies at the Ohio State University, I would like to share first of all the idea that a list of "what should be assessed" may be similar to or different in certain respects from a list of "desirable outcomes." As you may already know, the state of the art in evaluation is such that not all desirable outcomes can be measured adequately. This means that we should not try to limit a list of desirable outcomes nor a list of "what should be assessed" by the criterion of "lack of evaluation techniques" for assessment of desirable outcomes. "What should" may differ from "what can" be assessed. It is important that desirable outcomes are identified when making a list of "what should be assessed." In determining "what should be assessed," it may be necessary to

consider in addition to desirable outcomes such factors as (1) the time available for assessment, (2) cost relative to available resources, (3) priority outcomes to be assessed within a short- and long-range time frame for assessment, (4) the focus of the instructional/educational program being implemented within the time frame involved, and (5) assessment requirements of the funding source for the educational program.

Clarification and distinction among "what should be assessed, desirable outcomes, and what can be assessed" are necessary as we discuss "what should be assessed." It seems to me that the more I know about the tasks of assessment and evaluation, the more I feel concerned about how we proceed with such tasks for the purpose of budgeting, planning, and improving our educational programs as well as being accountable for the resources we expend. There are many questions to be raised about the adequacy of how we assess valid high-priority outcomes.

What are some high-priority outcomes that should be assessed at the preschool level? I would like to identify outcomes that appear quite consistently in the literature. Some of these are:

1. Social Understanding: cooperative play and work, sharing, taking turns, and courtesy, among indicators.
2. Reading Readiness: vocabulary, visual discrimination, and auditory discrimination, knowledge about the environment.

   Secondary indicators of reading readiness: (1) attention, (2) compliance, (3) memory as it relates to the general idea of a story (4) concepts such as top/bottom, up/down, open/closed, etc., (5) writing in terms of copying straight lines, circles, etc., and (6) page turning.
3. Literature: recognizing, enjoying, and appreciating literature, developing a strong sense of story; responding actively and appropriately to literature in a variety of ways (dramatic play, painting, choral speaking, puppetry,

flannel board presentations, cooking, etc.); being aware of and appreciating the magic power of words; and identifying with characters in literature.

4. Self-concept
5. Prehandwriting Skill Areas: small muscle development, eye-hand coordination, holding a writing tool, basic strokes, letter perception, and orientation to printed language.
6. Refer to the following pages for additional information on how various institutions and programs categorize, identify, and select outcomes to emphasize.

Other Outcomes Indicated by Literature

1. A sense of curiosity
2. Food and nutrition concepts
3. Work habits: persistence at tasks rather than giving up as soon as the tasks become difficult; attention; selection of tasks that offer some challenge rather than the easiest available; work on tasks without unnecessary requests for help.

It is evident from the samples of outcomes that there is commonality in the nature and wording of outcomes. Refer to the following pages on sources of information and categories of outcomes. At the general level of outcome categories such as cognitive, physical, affective, and psychomotor, there is less to argue about what should be assessed for instruction/guidance and monitoring purposes. At the observation and "testing" level, however, the task of selecting specific performances and behaviors of children requires agreement among educators on behaviors that should and can be observed, quantified, and analyzed. Sampling of behaviors poses a problem especially when attempting to collect data for accountability purposes and to determine growth as reliably and validly as possible. There are problems of adequacy and

range of sampling including difficulty levels, number of test items per outcome category, and coverage of desirable outcomes. There is also a concern that assessment be directed at observation of strengths as well as needs per outcome; do characteristics of "strengths" fall neatly within traditional test items? Which outcomes can be assessed informally as well as adequately for reporting and instructional purposes?

Bank Street College Perspective on Young Children's Goals and Objectives

According to the perspective of the college, the goals for early childhood are determined by the kind of adult who is needed and valued in a free, humanistic culture. This kind of adult may be described as confident, inventive, responsive, and productive. Various outcomes for early childhood education can be grouped under (1) confidence, (2) inventiveness, (3) responsiveness, and (4) productivity. These outcomes may appear to be unrealistic and unattainable since they represent the ideal toward which to strive. These outcomes are identified without undue concern about whether they can be technically assessed on a standardized basis. These outcomes serve as a guide for the instruction of the children. Assessment procedures for measurement of these outcomes need to be reliable and valid. Bank Street College has developed an instrument and procedures for observing and analyzing demonstrations of these outcomes; the instrument is called Behavior Ratings and Analysis of Communication in Education. It is an instrument for systematic observation and analysis of child/adult, child/child, and adult/adult interaction in educational settings. The instrument focuses on observing process as product. Refer to the list of "desired child outcomes" for each of the four major categories of outcomes (pages 10-11).

Problems of Beginning Kindergarteners

Stressful to both children and teachers at the beginning kindergarten level appear to be the problems of: (1) children having to adjust culturally learned/acquired behaviors that are in conflict with standards of group behavior that are valued in the

Table 1

Young children's educational outcomes

Source		Categories				
1.	Bank Street College, 1976	Confidence	Inventiveness	Responsiveness	Productivity	
2.	Virginia Dept. of Educ. A Guide for Kindergarten	Social Growth	Communication	Physical Growth	Aesthetic Growth	Intellectual Growth
3.	Hawai'i Dept. of Educ., 1972	Social-Emotional Dev.	Cognitive Dev.	Psychomotor (gross motor and fine motor)		Language Dev.
4.	Unidentified Source	Affective	Cognitive	Psychomotor (perceptual-motor coordination)		
5.	New York State Dept. of Educ., 1966-75 Experimental Pre-kindergarten Program	Areas of Effectiveness at Pre-kindergarten Level: Cognitive Development (general reasoning, school-related knowledge and skills, knowledge of verbal concepts; task orientation or the ability to concentrate on tasks until they are completed; extraversion or willingness to take the initiative in interaction with others; and verbal facility or willingness to use verbal skills).				
6.	U.S. Dept. of Health, Educ., and Welfare Guidelines for Local Head Start Programs and Elem. Schools 1979	Basic Skills:	Oral language, reading, writing, mathematics, science, problem-solving, and learning attitudes (attitudes include self-esteem as a learner, motivation, curiosity, initiative, purposefulness, persistence, task completion, and interest in life-long learning). Attitudes and skills include the ability to maintain an interest in learning; to understand and use language in communicating with others; to begin to understand concrete relationships; to discriminate between different shapes and colors; to recognize symbols such as letters and words; to order and classify objects according to specific attributes; to gain specific information about the world; to focus attention, persist in task , and remain curious.			

Table 1 (cont.)

Source		Categories		
7.	The CEMREL Institute, 1974 (see pages 14-19 for sample assessment items)	Large motor needs and strengths; small motor needs and strengths; language; social-emotional (initiation of activity; attention span; curiosity; problem-solving and frustration tolerance; producing and creating; dramatic play; relationship with teacher; acceptance of limits or routines; interaction with other children; respect for rights and needs of self and others; sharing and taking turns; and feelings about self.		
8.	Arizona Department of Education	Self-Care Self-Knowledge	Knowing and involved in immediate environement	Special Skills (Communication (speaking, listening, reading, writing, arts); physical; thinking and reasoning; and social)
9.	Hawai'i Dept. of Educ., Early Provisions for Schools Success (EPSS), 1983	Refer to the listing of "learner outcomes" for K-1 grades (page 9-13 draft copy).		

kindergarten classroom and which help both the children and teacher carry on educational activities with minimum emotional and physical disruption, (2) children learning to express needs, desires, and preferences in constructive ways, (3) children's lack of understanding of group behaviors that are helpful for each other, (4) children's lack of understanding the purpose of being in school, (5) children's lack of understanding of classroom management expectations (scheduling and procedures for involvement in classroom activities), (6) children's inability for coping with stress situations involving group situations, and (7) children's learning about the value of being productive in their daily activities. There are other problem areas to be included, but the ones mentioned so far indicate the kinds of outcomes that may need to be assessed during the preschool year(s) in addition to development of the basic skills of speaking, computing, writing, and reading. Such problem areas also help to indicate that the focus of assessment in the early preschool years is on process as product. Assessment questions could include: (1) Can the children differentiate between helpful and disruptive classroom behaviors? (2) Can the children communicate their needs, desires, and preferences in constructive ways? (3) Can the children identify group behaviors that facilitate group activities? (4) Can the children understand why they need to be quiet and "in line" for different occasions during the school day? (5) Can the children demonstrate ways of solving their problems in their interpersonal relationships and interactions with peers and adults? and (6) Can the children identify when and how they are being productive for themselves and others?

EXHIBIT A

INDICES OF GOAL FULFILLMENT

Goals	Objectives: to enable children to develop:	Desired Adult Intervention	Desired Child Outcome
GOAL #1 — CONFIDENCE FOR THE 5-6-7-8 YEAR OLDS	—A sense of competence to meet challenge of this new life	—Recognition of specific accomplishments	—Speaking without being called upon —Asking questions
	—A feeling that one will be liked	—Accepting, encouraging children's efforts —Showing warmth, affection, and interest in children's comfort, out-of-school life	—Expressing positive inner feelings
	—Growing ability to set goals for self	—Guiding activities in terms of children's interests and needs	—Expressing needs, desires, preferences
	—Growing ability to assess one's behavior in relation to own goals	—Stimulating self-correction	—Showing initiative in finding answers
	—Growing ability to make decisions and select activities in terms of one's needs and interests	—Providing opportunities for independent activities and different products for parallel activities	—Self selection of activities
GOAL #2 — INVENTIVENESS FOR THE 5-6-7-8 YEAR OLDS	—Growing ability to reason, to draw conclusions from evidence, to give rationale for actions	—Extending, clarifying children's comments —Stimulating children to extend their own ideas	—Expression of logical thought process
	—Investigation of what things are, how they function, and how they relate	—Providing opportunities for activities based on children's real experience	—Combination of logic and imagination
	—Growing ability to formulate and express original ideas, opinions	—Providing opportunities for expressive activities	—Expressing imaginative thought processes —Making highly elaborate comments
	—Growing ability to build upon ideas of others	—Providing opportunities for peer communication	—Extending, clarifying ideas of other children
	—Understanding and increasing use of problem-solving skills	—Controlling behavior calmly and rationally	—Coping with stress situations effectively
GOAL #3 — RESPONSIVENESS FOR 5-6-7-8 YEAR OLDS	—Trust in adults as supportive persons	—Responding to children's needs, desires —Speaking to individual children —Showing warmth, affection, support for children	—Warmth, affection for adults
	—Growing ability to share joys and sorrows of others	—Expressing interest in children as persons, not merely as learners	—Expressing human interest in other children and adults
	—Appreciation of aesthetic values	—Providing opportunities for creative writing, graphic work, music, and expressive manipulation of materials	—Choice of creative writing, graphic work, music, and expressive manipulation of materials
	—Ever deepening interest in the broader environment	—Providing opportunities for social studies and activities based on real experience	—Choice of social studies and activities based on real experience

EXHIBIT A (Cont.)

GOAL #4 — PRODUCTIVITY FOR 5-6-7-8 YEAR OLDS

Goals	Objectives: to enable children to develop:	INDICES OF GOAL FULFILLMENT: Desired Adult Intervention	Desired Child Outcome
	—Growing ability to communicate orally	—Responding to children's communication with acceptance, encouragement, extending, and clarification	—Self-initiated communication and total frequency of communication
	—Progressively more complex, meaningful, and sophisticated use of language	—Eliciting logic and imagination in open-ended questions —Presenting thought provoking material —Stimulating self correction	—Expressing logic and imagination and making highly elaborate comments
	—Growing ability to cope with emotional stress	—Modeling coping with stress situations	—Coping with stress situations —Sense of responsibility for group behavior
	—Increasing enthusiasm for the work at hand	—Basing activity on child's real experience and giving recognition for specific accomplishment	—High involvement in activity —High attendance record
	—Increasing competence at every level of learning and doing	—Indicating high expectations of children's performance —Developing repertoire of teaching strategies to provide appropriate learning experiences	—Mastery of knowledge, skills, and social competence needed for high level of performance.

Exhibit B

EPSS LEARNER OUTCOMES RELATED TO DEVELOPMENTAL AREAS

MENTAL DEVELOPMENT

1. Demonstrates productive and independent learning through exploring, initiating, inquiring and creating.

   a. Demonstrates one's awareness of the environment through seeing, hearing, smelling, and touching.

   b. Demonstrates a willingness to learn.

   c. Uses language to acquire information.

   d. Selects, plans and organizes own activities.

   e. Examines alternatives and selects an appropriate course of action.

   f. Utilizes various resources.

   g. Follows through on tasks to completion.

   h. Evaluates own progress.

2. Develops a variety of thinking processes such as imagining, questioning, logical, analytical and sequential thinking, patterned, intuitive and simultaneous thinking.

   a. Recognizes main ideas.

   b. Is aware of the sequence of events.

   c. Asks pertinent questions.

   d. Compares and contrasts objects, ideas and events.

   e. Imagines, visualizes and expresses things experienced.

   f. Relates new ideas to own experiences.

   g. Determines patterns or structures; sees relationships.

3. Demonstrates thinking and knowledge and expresses feelings and attitudes through language and actions.

   a. Uses materials in appropriate ways.

   b. Makes decisions appropriate to developmental level.

c. Estimates and computes quantities to arrive at solutions.

d. Checks for reasonableness of results.

e. Groups objects, ideas, and events.

f. Helps other in appropriate ways.

g. Builds things.

h. Dramatizes events and experiences.

4. Applies knowledge and skills to real life settings.

5. Language Arts - Oral and written communication

a. Identifies and names common objects and pictures.

b. Uses appropriate vocabulary in describing people, places, objects and actions.

c. Communicates thoughts and needs effectively in small groups and one to one situations.

d. Tells stories or events in sequence.

e. Summarizes information heard or read.

f. Gives instructions or directions.

g. Inquires about the environment, examines and explores ideas.

h. Expresses ideas and feelings, using stories, poems and creative drama.

i. Writes for a specific purpose and audience.

6. Mathematics - Concepts, Computations, and Applications

a. Identifies and names geometric shapes found in common objects and pictures.

b. Arranges objects/pictures in a particular sequence or pattern and describes the pattern.

c. Understands and uses as many as, more than, less than in comparing numbers up to 100.

d. Recognizes and writes numerals.

e. Knows names of numbers.

f. Uses addition and corresponding subtraction facts, at least through sums of 10.

g. Understands and applies whole-part concepts such as whole and half, quarter and third.

h. Counts by ones, twos, fives, and tens up to at least 100.

i. Recognizes relative times of events and uses appropriate descriptive words such as early, late.

j. Investigates and compares objects in terms of length, temperature, weight.

k. Recognizes and uses coins appropriately.

l. Investigates use of measurement to collect and record data and to solve problems.

m. Identifies problem and applies simple, but logical problem solving processes to obtain solution.

n. Solves simple word problems presented orally by teacher.

AESTHETIC DEVELOPMENT

1. Experiments with a variety of art materials, rhythm, sounds and creative drama.

   a. Experiments with paints, crayons, clay and other art media.

   b. Experiments with rhythmic, melodic and harmonic instruments.

2. Enjoys and appreciates beauty and creative expression wherever it is found, for example, art forms, singing, dancing and cultural tradtions.

   a. Increases awareness and appreciation of color, design, form, texture, rhythm and sound.

   b. Understands and uses the visual elements of art.

   c. Understands music concepts dealing with tone, rhythm, form, melody, harmony, tonality and texture.

   d. Sings simple songs and recognizes melodies.

   e. Creates original stories and/or poems.

   f. Plays games skillfully and freely and enjoys rhythmic activities.

3. Expresses feelings, ideas and experiences in various ways.

   a. Visualizes from real and vicarious experiences: imagines, pretends and projects.

b. Develops skills that are necessary for musical expression: listening, analyzing, composing, improvising, arranging and conducting.

PHYSICAL DEVELOPMENT

1. Understands and practices good health habits:

   a. Good nutrition, adequate sleep and appropriate physical activity.

   b. Self-care habits.

   c. Relaxation.

   d. Physical fitness.

2. Progresses in movement and coordination involving large and small muscles.

   Large Muscle Movement and Coordination

   a. Locomotor skills: walks, runs, hops, jumps, gallops, slides, skips and leaps.

   b. Non-locomotor skills: swings, sways, bends, stretches, turns and twists.

   c. Object handling skills:

      Balls: roll, catch, throw, kick, dribble, strike.
      Ropes: short/long rope, double rope.

   Small Muscle Movement and Coodination

   a. Buttons and unbuttons clothes.

   b. Paints and draws pictures and constructs things in the symbolic or representative stage; is able to use such materials as crayons, paints and clay with ease.

   c. Uses scissors properly.

   d. Writes name legibly.

   e. Writes letters.

   f. Traces various simple geometric shapes.

   g. Draws various geometric shapes.

3. Demonstrates an awareness of body parts and how the body moves in space.

   a. Knows how the whole body and its different parts can move.

b. Knows how the body is moving using different speeds, weight, pathways and kinds of flow.

SOCIAL-EMOTIONAL DEVELOPMENT

1. Develops positive self-concept and self-understanding.

   a. Develops self-awareness.

   b. Understands and expresses feelings.

   c. Develops positive self-esteem.

   d. Develops self-management skills including self-control and problem-solving.

   e. Shows pride in one's own cultural and ethnic background.

2. Develops social skills.

   a. Relates well with other children and adults in school and in the community.

   b. Works and plays effectively with others.

   c. Demonstrates respect for the rights and feelings of others as well as of self.

   d. Participates in class activities.

   e. Solves social problems without resorting to force.

   f. Assumes leadership roles.

EXHIBIT C

NEEDS AND PLANS--1

LARGE MOTOR NEEDS AND STRENGTHS

Child_____

Age_____ Date_____ Teacher_____

SUMMARY OF PLANS

General Coordination

Very awkward	Somewhat awk.	Adequate	Very good

General Interest

Avoids	Some interest	Adequate	Strong interest

General Caution

Very fearful	Overly cautious	Adequate	Somewhat careless	Very careless

Walking on the Line

Very wobbly	Some balance problems	Frequently off line	Smooth, mostly on line

Walking Boards

	Very wobbly	Balance problems	Steps off	Walks smoothly
4"				
2"				
	Refuses	Wants hand	Hesitant alone	Confident
6"				

Jumping off Chair

Refuses	Wants hand	Alone cautious	Confident	Wild jump

Sits, slides	Steps off	Jumps one foot ahead	Two-footed jump

LARGE MOTOR PLANS

Jumping over Lines

Steps	One-foot jump	Feet togeth. short	Adequate

Running

Awkward	Somewhat awkward	Smooth adult

Hopping

Cannot	2 or 3 only	Hops well

Skipping

Can't	Gallops	True skip

Stair Climbing

Does not alternate	Alt. up only	Alt. both

Ball Throwing

Wild	Gen. direc.	To catcher	Under 6'	Over 6'

Ball Catching

Fearful	Usually misses	Often misses	No accom.	Uses body	Uses hands

EXHIBIT C (CONT.)

NEEDS AND PLANS--2

SMALL MOTOR NEEDS AND STRENGTHS

General Coordination
Very awkward | Somewhat awk. | Adequate | Very good

General Interest
Avoids | Some interest | Adequate | Strong interest

Cutting
Can't cut | Slashes only. | Choppy | Fairly smooth | Smooth on line | R L Alt.

Buttoning and Unbuttoning
Cannot | Awkward | Adept

Zipping and Unzipping
Awkward cannot start | Adept cannot start | Adept and starts

Drawing Grip
Hammer | Crude opposition | Adult | R L Alt.

Drawing Control
Very awkward | Fair | Adult

Drawing Position
Top | Tip | Inter.

INDIVIDUAL TESTING SESSION

Counting
Objects counted_____ Rote counting_____

Body Parts (N: Names, R: Recognizes)
Eye___ Ear___ Nose___ Mouth___ Arm___ Hand___
Fingers___ Leg___ Foot___ Toes___ Elbow___
Wrist___ Shoulder___ Ankle___ Cheek___

Sorting
Forms matched_____ Pictures sorted_____

Colors (N: Names, R: Recognizes, M: Matches)
Red___ Blue___ Yellow___ Orange___
Green___ Purple___ Black___ White___
Gray___ Brown___ Tan___ Pink___

Copying Forms (attach sheet)
Circle | Cross | Square | Triangle | Diamond

OTHER CONCEPTS (Use back as necessary.)

Child_____

Teacher_____

SMALL AND PERCEPTUAL-MOTOR PLANS

CONCEPT PLANS

INTERESTS, STRENGTHS, AND OTHER IMPORTANT INFORMATION

EXHIBIT D

NEEDS AND PLANS--3

SOCIAL-EMOTIONAL
(Refer to long form of checklist as you rate. Add brief notes to give more complete picture.)

	Definitely needs help	Could use help	Adequate	Strength
Initiation of Activity				
Attention Span				
Curiosity				
Frustration Tolerance and Problem Solving				
Producing and Creating				
Dramatic Play				
Relationship with Teacher				
Limits and Routines				
Interaction with Children (List Names)				
Rights of Self and Others				
Sharing and Taking Turns				
Self-concept				

Child _____

Teacher _____

SOCIAL-EMOTIONAL PLANS

LANGUAGE
(Refer to long form of checklist as you rate.)

	Definitely needs help	Could use help	Adequate
Understanding			
Amount of Language Use			
Use of Sentences			
Intelligibility			

LANGUAGE PLANS

EXHIBIT E

LANGUAGE CHECKLIST

	Definitely needs help	Could use help	Adequate
Understanding[1]	Very often does not understand what is said to him.	May have trouble understanding if not spoken to carefully and directly or in simplified language.	Rarely fails to understand.
Amount of language use[1]	Speaks little or not at all.	Answers direct questions or makes requests only.	Initiates conversation and uses speech socially.
Use of sentences[1]	Uses only one or two words at a time (or no language.)	Three-year-olds: Uses mostly phrases. Four- and five-year-olds: Uses only simple sentences.	Three-year-olds: Frequently uses complete sentences. Four- and five-year-olds: Frequently uses more complicated sentences.
Intelligibility[1]	Frequently difficult to understand.	Occasionally difficult to understand.	Speech usually clear and audible.

[1] If child's first language is not English, note skills in both languages.

EXHIBIT F

SOCIAL-EMOTIONAL CHECKLIST

Definitely needs help	Could use help	Adequate	Strength
1. INITIATION OF ACTIVITY			
Rarely initiates activities or has trouble beginning.	Frequently spends long period before initiating or initiates in only one or two activities.	Occasionally needs help in initiation; accepts it readily.	Always involves self in a variety of constructive activities.
2. ATTENTION SPAN			
Rarely finishes task, moves rapidly from one to another.	Usually needs encouragement to stay with task until complete.	Can usually remain with task appropriate to age level until it is finished.	Can stay with a chosen activity for very long periods, even returning the next day.
3. CURIOSITY			
Shows little or no interest in anything new.	Can be intrigued by really exciting things but often uninterested.	Actively explores any new things in the room.	Interested in new ideas, words, and relationships as well as things.
4. PROBLEM SOLVING AND FRUSTRATION TOLERANCE			
Rarely seeks to solve problems on his own; unable to tolerate any level of frustrations; reacts by giving up, crying, or aggression.	Sometimes fails to solve problems on his own; or sometimes reacts to moderate frustration by giving up, crying, or aggression.	Usually tries hard to solve problems and accepts failure well; but if severely frustrated, may behave immaturely.	Is inventive in solving practical problems. If completely blocked, is mature in behavior.
5. PRODUCING AND CREATING			
Does not enjoy productive* activities.	Productive* rarely creative.*	Often creative* sometimes innovative.*	Highly creative* and innovative.*
6. DRAMATIC PLAY			
Never takes part in dramatic play.	Rarely takes part in dramatic play.	Frequently "pretends" with regard to roles, objects, and situations.	Highly creative in dramatic play.

*For definitions see *Producing and Creating, Diagnosis.*

EXHIBIT F (CONT.)

Definitely needs help	Could use help	Adequate	Strength

7. RELATIONSHIP WITH TEACHER
(Note if different with different teachers)

Continually seeks help, contact, or attention; frequently behaves aggressively; or ignores teacher.	Often requires help, contact, or attention; seeks attention through silly or wild actions; or is occasionally aggressive toward teacher.	Warm relationship, and asks for help or attention only when appropriate.	Self-sufficient, may volunteer help or support to teacher when appropriate.

8. ACCEPTANCE OF LIMITS OR ROUTINES

Continually tests limits and routines; or is compulsive about routine (anxious at deviation from schedule).	Frequently tests limits, fails to follow routines, or is somewhat anxious about changes in routine.	Usually conforms to limits and routines, can deviate easily when appropriate.	Understands reasons for rules and obeys intelligently even when the teacher is not present.

9. INTERACTION WITH OTHER CHILDREN

Avoids other children most of the time.	Often rejects advances of others or plays more alone than with others.	Often initiates play with other children and usually accepts initiation from others.	Initiates cooperative play regularly.

10. RESPECT FOR RIGHTS AND NEEDS OF SELF AND OTHERS

Completely unable to protect self, typically bosses others, frequently aggressive, or disrupts others in play.	Frequently unable to protect self, manipulates others (bossy) on occasion, or sometimes aggressive.	Respects rights of others; may hit to protect self, but not without reason.	Respects rights of others but protects own interests, usually verbally. Can take both leader and follower roles.

11. SHARING AND TAKING TURNS

Never shares. Always tries to be first.	Rarely willing to share. Can wait only briefly for turn.	Usually willing to share if has enough. Will take turns.	Is inventive in solving problems related to sharing or play material.

12. FEELINGS ABOUT SELF

Frequently has doubts or is negative about himself and the way others feel about him; often says he can do something he cannot; or refuses to try something he can do.	Seems somewhat unsure of own worth and acceptance by others, or somewhat unrealistic about his abilities.	Has positive feelings about himself and believes that other people like him. Realistically evaluates his strenghts and weaknesses.

III. Assessing Preschool Outcomes

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What should be assessed as preschool outcomes?

The answer to this question must be another question. What do we want to measure? What are the objectives for the program? What do the researchers who are involved want to know? Why do we have a preschool program? If these questions are not specified, we are left with no guidelines by which to proceed. I have tried to anticipate some of these questions or at least explore some areas of interest that seem appropriate for our organization and in keeping with the mission of the Schools that may shed some light on the question.

Are we going to follow the KEEP path of development in which we design a program that seems, empirically, to work with the target population, then study it in an attempt to understand its nature and how it relates to the children, their cognitive development, and the values of their families and communities? We would then be in a position to prepare such a program for dissemination. At KEEP, we looked at the characteristics of the children about whom we were concerned. Poor academic performance and low verbal scores were the critical findings, hence, emphasis was first placed on reading. We have explored program development, delivery systems, evaluation procedures, the ecology of successful trials, teacher training procedures and a number of other aspects of the issue (Au, Tharp, Crowell, Jordan, Spiedel & Calkins, 1985).

If we follow this pattern that has been set by recent history within CDEE, we could start with a needs assessment to determine the sort of program we should have. Should we define needs assessment in terms of the cognitive characteristics of the target group of children? That was essentially what we did at KEEP. However, it

may be redundant and unnecessary to begin at this point. Virtually every study that has been done in compensatory education in Hawai'i with preschool children has pointed to the area of language development (Crowell & Fargo, 1967; Au & Spiedel, 1976). We can be fairly confident that this will again emerge as an area that we would have to address.

If we focus on the teaching and learning styles of the families in our target population, we can build on research that has been done at CDEE to guide our hypotheses about delivery systems that would be culturally compatible. We have seen how the work of the anthropologists and the information they have brought regarding patterns of social interaction within the family and community has supported the delivery system of the reading program (Au & Jordan, 1981). Parallel studies are currently being carried out that are looking at the writing behaviors of groups of children within the clasroom (Ushio, 1986). This approach recognizes the social and cultural patterns of the children and their families. It helps us to accommodate the teaching and learning styles in the community. These issues reflect the social and emotional needs of the families, and of the children within those families as well. School programs can and should be influenced by cultural parameters.

If we agree that the social and cultural needs of the families and the cognitive development of the children are the primary areas of concern, do we then look at the progress of individual children? The diagnostic/prescriptive or medical model suggests that we pinpoint the level of development and the needs of individual children to determine instructional programming. Based on the findings of a few representative children which would define the range of performance within the group, we could begin to build a program that would address those needs. The ongoing collection of data from the children in the experimental group would drive the daily activities which could then be refined into a comprehensive preschool program.

Many of the Head Start programs did exactly this, and psychometric studies at the time suggested that certain ones of them were successful, or at least immediately beneficial to the children involved. One of the mistakes that some of those programs made which we can avoid is that they focused on isolated deficits (or differences if you prefer) in language competence, and attempted to teach language patterns without content. They concentrated on pattern practice and speech drills without providing a broad base of experience and context to make the language training meaningful to the children. In the early days at KEEP, we quickly became aware of a parallel problem that resulted in a switch from a reading program that emphasized phonics and mechanics which had produced little evidence of transfer of training, and less opportunity for application or generalization, to a more top-down curriculum which concentrated on understanding. This shift reflected our concerns with more general cognitive development, with the need to teach general thinking strategies that can be applied to a wide variety of problem-solving situations, in short, with our goal to become more process-oriented in program development.

Language development and cognitive processing are admittedly important if we want our intervention to improve later school performance. Earlier attempts at assessment were often less than informative and here again there may be a lesson that can save us a lot of time and effort. The Head Start programs that showed the best immediate gains were usually the ones that focused on specific developmental problems and taught to remediate those problems; however, these were often not the ones that held up the best over a long period of time. The more stable, long-term postive results suggested in nation-wide evaluation of Head Start participants, reflected fewer health problems, fewer school retentions, less use of special educational facilities, fewer referrals to outside agencies, and these results did not appear to be related to particular preschool programs but rather to preschool experience generally (Westinghouse Learning Coporation, 1969; White, Day, Freeman, Hantman & Messenger, 1973).

There were also some rather conflicting statements that were produced by some of those studies. We were impressed by immediate statistical gains on standardized tests in specific programs but these frequently did not correspond to some of the more insightful observations that were made. These results told us little about the processes of learning in a preliterate school environment. Courtney Cazden (1972) posed a very critical dilemma when she noted that the more structured academic programs produced the best immediate statistical results in compensatory preschool programs, but that the highly unstructured verbal environment of the home continued to be the best way for children to learn to talk. Obviously some of these programs were not looking at process, and there seems to be a suggestion here that at least in a few of these programs the assessment was of little value in advising program development that produced long term success.

There are other needs, or more accurately, interests that may also influence program development. We certainly have to consider the theoretical persuasion and the expertise of the researchers who are involved in this project. We have many examples of preschool programs that have been built on a particular theoretical model, field-tested widely, and used very successfully.

The Peabody Early Experience Kit (PEEK) with which I was associated, is based on a developmental learning model and had extensive field-testing (Dunn, Chun, Crowell, Dunn, Halevi & Yackel, 1976). While Vygotsky was not yet in vogue in the first half of the 70s when PEEK was being developed, his point of view is certainly consistent with the underlying philosophy of the PEEK program.

Game-Oriented Activities for Learning (GOAL) was written by Merle Karnes (1978) using a Piagetian approach. It has been widely used and has the advantage of being able to fit in with traditional early childhood education. It is compatible with the training received by large numbers of preschool teachers during the last quarter century or more.

Maria Montessori made a tremendous impact on early education with the methods she recommended (1912). She advocated a prepared environment over which the young child could successfully exert some control; for example, the reduced scale furniture that is found in most preschools today was her innovation. She also contributed a wealth of well-designed materials that are intended to enhance the development of perceptual skills and coordination. It is probably unfortunate that she combined her ideas about early education with some of the methods of traditional Italian schooling of her day. She did, however, put a great deal of emphasis on teaching responsibility, independence, and concern for one's peers which would seem to be highly compatible with the cultural values of our target population.

There is one other body of literature that may have a great deal of value in providing guidance in developing our program, and that is the recent work in early literacy (Holdaway, 1979; Taylor, 1983). By organizing a classroom into a community of young citizens or scholars, so that the common goals of the group motivate the learning behaviors of each of its members, we can engage all of the children in activities that promote problem-solving behavior and foster the development of cognitive skills that are immediately useful to each child (Crowell & Kawakami, in press). With this kind of integrity in a classroom program, transfer of training or generalization of learning can be maximized.

There are aspects of all of these programs that could be useful in a preschool for our target group of children. Selection of specific elements of these or any other packages, however, should be made with a firm understanding of what our own objectives are, or on the basis of a consistent comprehensive theoretical position so that we do not find ourselves with practises that are inconsistent and will result in conflicting outcomes.

If the aim of the program is to define a curriculum that will be developed, refined, evaluated, then used in experimental and later disseminated to other classrooms, then we need to determine what to assess within this context. What do we want to teach our children? We can use to great advantage many of the programs that already have a good track record and supplement or revise them to insure a good fit in terms of the familial-cultural values of the target community.

We can assess by group psychometric methods to insure that our children are maintaining or surpassing developmental milestones. These data, however, give us relatively little guidance in detailed program development.

There is a need for formative evaluation on a regular, repeated basis. We need to measure ability, language functioning, and achievement of curriculum objectives. We need to prepare children to be able to function as contributing members in a group of peers. To document this, we need to learn how to make detailed observations of the interactions of both children and adults. We can also assess by looking at individual progress; this is often a very useful way to identify hypotheses about the teaching-learning processes that are taking place that demand further, more detailed analysis if we are to understand what the crucial elements of the program are.

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IV. Evaluation of Social and Emotional Development

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My assignment is to discuss the "how" of evaluation in relation to social and emotional development. In thinking about the topic, I am reminded of Bradley and Caldwell's comments about the assessment of social and emotional development. They liken it to trying to catch a soap bubble in your hands. "The bubble floats, delicate, glistening, inviting capture and inspection." Yet, regardless of what strategy you use, it is impossible to hold that "fragile film in your hand long enough to examine. Before you have an adequate look, it is gone" (Bradley & Caldwell).

In evaluating programs for young children, it is difficult to separate affective from cognitive and psychomotor development. Nevertheless, I believe with many others that social and emotional development is probably the most significant measure for evaluating preschool children.

Because most people feel that it is almost impossible to define emotion, it is probably better to look at attributes of emotion or to talk about this developmental area in terms of "social competence".

While there is a little concensus about what measures should be used to evaluate social competence, people like Zigler and Trickett (1979) feel that rather than IQ, the latter should be the major measure of the success of intervention programs such as Head Start. In the evaluation of social competence, one might think of motivational and emotional variables such as locus of control, self image, learned helplessness (a concept originated by Seligman), and appropriate responsivity to adults. Further, in order to carry out an adequate assessment of social competence, one must look at long-term effects which should include: being in school rather than out; being in appropriate grade for age; being in regular rather

than special classroom; not being a juvenile delinquent; not involved in teenage pregnancy; and being self-supporting rather than on welfare (Zigler & Trickett, 1979).

While we have little information about what variables result in these long-term effects, mostly because we have focused on cognitive variables and IQ, and also because there are so many intervening variables, it behooves us to look at some of these variables through observations of children and use of longitudinal study methodology.

Sandra Scarr (1981) has found that behaviors such as being cooperative, attentive, less active, and well adjusted at two years of age are predictive of higher IQ at four years. Positive affect during play at 18 months predicts competence in peer group at three and a half years of age, according to Waters, Wippman, & Sroufe (1979). Attachment studies have shown that secure attachment results in competencies to explore, to relate to peers.

In the evaluation of social competence, I believe strongly in use of observations, particularly video and/or audio recordings, allowing for the use of much of the recorded observations for comparison with later behavior.

Some of the behaviors one might look at would be: (a) the ability to focus attention; (b) peer interaction; (c) teacher-child interaction; (d) parent-child interaction including observations of teaching; (e) curiosity/exploratory behavior; (f) recordings of facial/body expressions; and (g) proxemics, ie., space considerations.

To briefly discuss some of these, the ability to focus attention falls in the cognitive domain, but it is also part of the attention-distraction dimension, and thus related to hyperactivity, impulsiveness, and task persistence. Studies have shown that children's ability to inhibit motor movement on command is related to measures of cognition and impulse control. In relation to proxemics, there may be a relationship between how the child experiences his environment and his capacity to concentrate. In our effort to emphasize social skills in children, we may be neglecting to provide a child privacy so he can explore and problem solve on his own.

Teacher observations, such as anecdotal records, behavior recordings should also be considered. Other measures might be self inventories, where you use pictures and ask children about their likes and dislikes, or pictures depicting problem situations, and sentence completion tests.

There is a lot of controversy about case studies, but I think they provide a wealth of information about where the child and family are, and whether there has been movement perhaps attributable to the intervention process.

Dale mentioned some of the problems related to evaluation of children such as response sets, language problems, socially desirable responses. While they are certainly real, and must be addressed, they can be dealt with. Socially desirable responses may be more true with adults, and not necessarily so with children. Language can be a problem but it is not something that cannot be handled. Dr. Mary Martini, who has been carrying out observations of the Nanakuli program with a video camera, comments that since her observations are done as part of what goes on in a classroom, the children have regarded her and her equipment as part of the classroom.

I realize that video recordings and their analyses can be expensive and time consuming but I am assuming that you have the research staff and equipment and funding to carry out the necessary evaluation procedures to assess your efforts. As an aside, I have to disagree with Dale about only Brazelton himself being able to bring responses from the baby in the Brazelton Infant Scale. The scale has been standardized with several revisions, and one has to go through a rigorous course to become credentialed to work with the babies. Observers also are informed that they must reestablish reliability periodically.

As long as we are on Brazelton, I must say he wins friends and influences people as very few can. He also believes strongly in the importance of observation. This is with regard to the difference in teaching styles between caregivers in Uganda and in

our country. He was extremely puzzled when observing parents teaching a child a task, continued to watch them, and replay the videotapes and finally realized that the mother in Uganda keeps talking to the child until he gets to the point where he begins to solve the problem, then she becomes absolutely quiet. The child then knows that he is on the right track and really begins to work on the task. In other words, it is just the opposite of how we reinforce our children (personal communication).

To conclude, I would reemphasize that affective, motivational, attitudinal goals and behavioral outcomes should not be neglected in favor of cognitive-achievement goals. By focusing on affective goals, we may be closer to solutions of how we can have our children feel rewarded intrinsically about school to ensure long-term effects. Additionally, rather than try to find whether children can read or color within a line, we should be more concerned with whether the child enjoys looking at books and reading them.

Cronbach and associates (1980) refer to the evaluator as a historian, helping individuals and programs learn from what has happened. He also suggests that an evaluative inquiry should include a small fleet of studies over time, much like those done in the KEEP program at Kamehameha which was developed over a period of six years based on a series of studies (Tharp and Gallimore, 1979). Once an evaluation begins, some of the information that is obtained is unanticipated. As a consequence, the priorities assigned to evaluation questions must be revised (Cronbach, 1980).

I feel strongly that Kamehameha with its resources, talent and leadership in the Hawaiian community, should as it did with KEEP, develop and create the kind of evaluation programs that will help you serve your population optimally. As has been noted by a number of writers, for systematic program improvement resulting in program modifications, the "medical" model of evaluation rather than the engineering input/output model should be used. The former allows for prescriptions of treatment and evaluation of their effectiveness. It relates to diagnosis and side effects,

meaning unintended effects, which must also be monitored. This means that in addition to intended outcomes, a wide range of other possible outcomes needs to be assessed. I see this kind of information as highly relevant in the evaluation of early education programs.

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V. Assessing Language Intervention Outcomes

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What criteria should assessments of early intervention outcomes meet? First, in language as in other developmental domains, outcome measures must correspond to goals and objectives. If, for example, correct use of certain morphemes is a program objective, then assessment procedures must quantify the number of obligatory contexts for each morpheme as well as the number of times the morpheme is used correctly.

A second consideration in assessing early intervention outcomes is social validity--whether the behavior change is judged to be meaningful and socially important to "significant others" (Baer, Wolf, & Risley, 1968). It is easy to overlook the fact that program gains may not cause the young child to be viewed more positively by teachers, parents, and peers. The ultimate goal must be to increase the child's potential for success in educational and social settings.

The first challenge is to identify each child's unique pattern of language behaviors. This would not be so difficult if language were unidimensional and consistent from one setting to another. However, this is not case. Language and language learning vary considerably across children and across settings. All children do not learn the rules of language in the same way or at the same rate. Nor do they learn and use the same rules.

Obviously, the language that children acquire depends on the language to which they are exposed. When they learn and use different rule systems it is because their parents use these rules systems. It is important that early interventionists not make value judgments about natural variations: they are in no way inferior to

what is termed "standard language". The only reason for concern about natural variations is their potential to affect learning and socialization. Because people tend to make social and intellectual judgments about speakers based upon their language behavior, children who use a nonstandard language system tend to be rated as less competent, and socially different from children with a standard dialect (Edwards, 1981; Williams, 1970). A major goal of early intervention for these children is to provide them with skills which will put them at an advantage rather than a disadvantage, with teachers and some peers. Moreover, language skills must be redirected and accelerated without depreciating the child's self-esteem.

Early Language Goals and Objectives

Language is the knowledge and use of a set of symbols and rules to represent ideas and intentions (Bloom & Lahey, 1978). Language learning involves acquisition of knowledge and skills in phonology, morphology, syntax, semantics, and pragmatics. Young children must learn the phonological system (the individual sounds and rules governing the postion of sounds in words and the sequencing of sounds). They must also learn the morphological system (rules for forming words with one or more small units of meaning), the syntactic system (rules specifying acceptable word order, sentence organization, and the relationships between words, classes, and other sentence constituents) and semantics (the system of rules governing meaning or content of words and word combinations). Additionally, they must learn pragmatic or sociolinguistic rules in order to use language appropriately within a variety of communicative contexts.

Bloom and Lahey (1978) have collapsed the five rule systems of language into three-categories--form, content, and use. This three-component system provides simple and convenient ways of talking about language competence and performance. Form includes phonology, morphology, and syntax. These are the surface or structure

aspects of language that connect to and express meaning. Content is the meaning or semantic aspect of language. This aspect of language includes cognitive information about the physical and social worlds and linguistic knowledge about how to express cognitive knowledge. Use is the pragmatic or social interaction aspect of language. It has been described as "tacit knowledge of who can say what, in what way, where and when, by what means and to whom" (Hymes, 1972, p.12).

Knowledge and skills in the three areas are acquired gradually, beginning in infancy and continuing well into the school years. Table 2 provides an overview of the five stages of speech, language, and communication development during the preschool years. The stages are differentiated according to MLU (mean length of utterance) and chronological age. The next section will suggest some general goals in each of the three areas of form, content, and use. These are broad goals which must be further analyzed into specific objectives according to a child's particular intervention needs.

Language Form Goals and Objectives

Children should be able to demonstrate at least the following language form skills at these ages.

AT AGE THREE:

Produce three-word noun phrases
Use three-word combinations to encode basic semantic relations
Produce intelligible speech (at least 75% of the time)

AT AGE FIVE:

Produce expanded noun phrases (4 or 5 elements)
Use to be as copula, on, possessive 's, and some contractions
Imitate sentences up to 6 words
Use the past tense
Achieve MLU of 5.5 words
Use intelligible speech (at least 95% of the time)

Language Content Goals and Objectives

Children should be able to demonstrate at least the following language content skills at these ages.

AT AGE THREE:

Understand the location of two objects in relation to one another
Understand possession and attribution
Recognize and name colors
Match identical items
Group objects by a single dimension
Apply previous experiences to new problems
Remember and talk about past objects and events

AT AGE FIVE:

Remember daily routines
Know shapes, sizes, positions, and colors
Know time (day/night) and seasons
Know number symbols (1-10)
Understand most prepositions
Understand most adjectives
Follow 3-action commands
Ask and answer wh-questions

Language Use Goals and Objectives

Children should be able to demonstrate at least the following language use skills at these ages.

AT AGE THREE:

Add information to the prior utterance of communicative partner
Use utterances to call attention, regulate others, request, participate in social routines, comment, and play

AT AGE FIVE:

Change tone of voice and sentence structure to adapt to listener's level of understanding.
Use alternative forms that take context differences in to account
Demonstrate some ability to assume another's perspectie
Demonstrate some metalinguistic awareness (the ability to think about and comment on language
Initiate and maintain conversations

These broad goals provide a source of reference for discussion of outcome measures in the three areas. A comprehensive assessment battery should tap at least these behaviors.

Outcome Measures

There is general consensus that a single procedure is not sufficient to collect the information necessary for diagnosis, intervention design, or evaluation of program outcomes. Tests and standard elicitation procedures generate a sample of language behavior by asking children to label objects, fill in missing words, or imitate words and phrases. The structures they elicit may be very different from those the children ordinarily use. This is not to say that formal instruments have no application whatsoever. Despite their restrictive and insensitive nature they can generate some useful informatin if we do not lose sight of the limitations of the data.

There are two major types of assessment instruments--broad focus tests that permit an overall estimate of the child's development compared with that of same-age peers and tests that focus narrowly on one or more specific dimensions of speech, language, and/or communication. Tests that fall into the latter group permit in-depth evaluation of knowledge in specifc language domains: they are most useful at the second stage of assessment. We will briefly consider some tests in each category before discussing language sample analysis, a procedure which permits examination of actual linguistic production in conversational settings.

Broad Focus Tests

The Houston Test for Language Development (Crabtree, 1963) provides an overall measure of receptive and expressive language skills through age six. Subtests in Part I (which are intended for ages three to six years) assess vocabulary, grammatical usage, and content. Part II subtests (intended for ages three to six years) assess syntax, self-identity, auditory judgments, and other aspects of speech. The Utah Test of Language Development (Mecham, Jex & Jones, 1963) is similar in orientation and types of items. The age range for the Utah Test is 1.6-14.5 years.

The Verbal Language Development Scale (Mecham, 1971) is adapted from the Vineland Social Maturity Scale. It provides a simple survey of language indicators arranged in chronological order. Scoring can be done on an observational or interview basis. The REEL (Bzoch & League, 1971) is similar in that it is administered primarily through interviewing parents. Both of these scales can be administered very quickly but they provide limited and very general information.

The Preschool Language Scale (Zimmerman, Steiner & Evatt, 1969) assesses both comprehension and expression. Receptive vocabulary, concept acquisition, and understanding of commands are sampled on the comprehension scale. The expressive section samples some labeling, expression of concepts, memory span for digits, limited syntax and morphology, and articulation. The age range for this test is 18 months to seven years.

The Sequenced Inventory of Communication Development, revised edition (Hedrick, Prather & Tobin, 1984) is designed to evaluate the communication abilities of children functioning between four months and four years of age. The receptive section includes a series of items that elicit information concerning sound and speechawareness, discrimination, and comprehension. Test items are classified according to semantic/cognitive, syntactic, pragmatic, and perceptual aspects of communication. The expressive profile includes three types of behaviors: (a) imitating, (b) initiating, and (c) responding. An advantage of this instrument is that it is one of the few tests that views language in a social context. A disadvantage is that it only tests to age four.

Narrow Focus Tests

Language Form. The Test of Auditory Comprehension of Language (Carrow, 1973) includes 101 items to sample receptive vocabulary, syntax, and morphology. The standardization population of the original test was only 200 children, ages 2.10 to 7.0. However a briefer version of this test standardized on 400 children from 3-6 years of age is now available. The brief version is intended for group administration.

The Northwestern Syntax Screening Test (Lee, 1971) samples both receptive and expressive morphology and syntax. The age range of the test is given as 3-8 years, but it is most sensitive below the 6.11 age level. One problem with this test has to do with the fact that the standardization sample consisted of children from middle to upper middle suburban communities with less that 50 children in some of the age groups.

The Michigan Picture Language Inventory as developed by Lerea (1958) and revised by Wolski (1962) has some usefulness for sampling morphology. The morphemes tested, while not extensive, include plural and possessive nouns, articles, adjectives, adverbs, personal pronouns, demonstratives, prepositions, and progressive, present, and past tense verbs.

The Carrow Elicited Language Inventory (Carrow, 1974) samples primarily simple clause structures. Negatives, wh- questions, imperatives, pronouns, preposi tions, and various types of noun phrases are sampled. Plural (but not possessive) noun inflection is sampled and verb inflections are extensively covered.

Language content. The Boehm Test of Basic Concepts (Boehm, 1971) includes 50 vocabulary items in the categories of space, quantity, and time. Comprehension of individual words is tested by having the child choose from a set of pictures with items arranged developmentally. Although intended for children in kindergarten to second grade, many of the items are appropriate for use with preschoolers. Other familiar cognitive tests which provide a measure of general vocabulary functioning include the Vocabulary Comprehension Scale (Bangs, 1975), the McCarthy Scales of Children's Abilities (McCarthy, 1970), the Wechsler Preschool and Primary Scale of Intelligence (Wechsler, 1967), and the Detroit Tests of Learning Aptitude (Baker & Leland, 1967).

The Environmental Language Inventory (MacDonald, 1978) assesses regularities in children's use semantic relations. It is most appropriate for use with children with good receptive skills and expression limited to two- and three-word utterances. It has limited utility for children over three years of age.

Language use. With the exception of the Sequenced Inventory of Communicative Development mentioned above, there are no available formal instruments to assess the pragmatic skills of preschool children. Lund and Duchan (1983) recommend collection of several language samples, each taken under different contextual constraints. The type of elicitation procedures for the samples will vary, depending upon what type of information is being sought. Possibilities appropriate for preschoolers include (a) structured interactions (design of an event with an adult eliciting particular prespecified communication behaviors), (b) structured situations (specific contexts in which the child carries out a prescribed sequence of behaviors without adult intervention), and (c) naturalistic interaction (a sample of communicative behaviors in a familiar context where the child is allowed to do whatever he wants).

There are at least two aspects of language use to consider--communicative intentions and conversational abilities. Children should be observed to determine their use of language to request goods, services, or information; to express attitudes or feelings; to convey information; and to establish and maintain social interactions. Subsumed under the heading of conversational abilities are turn-taking, ability to maintain a common topic, and the ability to make accurate assumptions about shared information and adjust language accordingly.

Taxonomies to use in analyzing the child's use of language for different functions are described by Chapman (1981). Dore, Gearhart and Newman (1978) provide a detailed system for coding the conversational skills of preschoolers. Halliday's (1975) taxonomy is also useful for young children.

Language Sample Analysis

Spontaneous language samples are by far the best source of information about a child's expressive language. Language Sample Analysis (LSA) refers to detailed description of a child's expressive language abilities, as produced in an interactive conversational context. There are now quite a number of linguistic taxonomies that have been developed for the precise purpose of describing, in a systematic fashion, a child's productive language system. While it requires substantially more time than traditional testing procedures, LSA is the most direct route to precise specification of language production. It permits assessment of language behaviors which are not influenced by the constraints and restrictions that standardized testing imposes. There are numerous studies pointing up the discrepancies between language abilities measured through formal elicitation procedures and language abilities evident in natural conversational interactions (e.g., Lahey, Launder & Schiff-Myers, 1983).

There are four phases in LSA--recording the conversation, transcribing the audio-recording, analysis of the data, and interpretation. These procedures have been described at length by Miller (1981) and others. Only the third step--analysis--will be discussed. There are now several computer-based programs which make analysis much faster and more reliable.

Two computer-based procedures which provide an alphabetical listing of a child's vocabulary (useful for study of individual lexical items) are LINGQUEST 1 (Mordecai & Palin, 1982) and SALT (Miller & Chapman, 1983). LINGQUEST 1 also computes the frequency of occurrence of each lexical item and runs a substitution analysis which compares the child's use of particular lexical items with the expected adult forms.

SALT has a wider range of application. The list of SALT language analyses includes: a frequency distribution of the number of utterances by word and morpheme length, number of utterances per speaker turn, number of complete and

intelligible utterances, type-token ratio for words, and mean length of utterance with a comparison to age expectations. Further, SALT constructs an alphabetized list of word roots and bound morphemes along with their frequencies of occurrence and a grammatical productivity analysis for determining the grammatical independence of each different word root in the sample. SALT also provides selected lists of form words which are useful in directing specific analyses of form and content. Once a language sample has been transcribed in the format required by the SALT program, the computer performs the desired analyses.

Social Validity

The idea of social validity was introduced in 1968 by Baer, Wolf and Risley. They argued that the domain of applied behavior analysis was "behaviors that are socially important, rather than convenient for study" (p. 92). Later, Wolf (1978) described social validity as a judgment on three levels: (a) "social significance of the goals," (b) "social appropriateness of the procedures," and (c) "social importance of the effects" (p. 207).

Design and evaluation of early intervention programs must be concerned with how meaningful the behavior change is for the child's present and future functioning and whether the resultant changes are valued by significant adults and the larger social community. An early intervention program does not achieve social validity unless it can demonstrate that the social acceptance and academic opportunities of its participants have been appreciably improved.

There are a number of ways to apply the concept of social validation to evaluation of an early intervention program. One method would be to interview parents concerning their satisfaction with the program. Another is to survey receiving teachers in the public school system. Assuming that preparation for

success in the public school system is a major early intervention goal, then follow-up data from receiving teachers will yield important information as to the program impact.

One way to increase the chances that children's language gains in a preschool program will have social validity is to collect objective data concerning acceptable and successful language performance in anticipated future placements. These data can then be used to formulate and select the language objectives which guide intervention activities.

Some questions to guide the formulation of language goals and objectives that have social validity are:

1. Is the language skill one that is typically performed by same-age peers?
2. Will the language skill increase the child's chances of successful participation in future environments?
3. Will the language skill help the child to be viewed more favorably by others?

Conclusion

In conclusion it seems appropriate to reiterate the two criteria for sensitive and useful outcome measures--assessments concordant with program goals and objectives and concern for social validity. The use of multiple measures is particularly important in the area of language/communication, and most critical is examination of the actual linguistic production in one or more conversational settings.

Table 2

Five Stages of Development During the Preschool Period

Stage	Attainments
I (MLU: 1.0-2.0)	Speech. Produces some words consistently but varies others greatly; limits initial words in the number and type of syllables and in the different phoneme types; gradually comes to be governed by phonological rules
(Approx. age: 12-26 months)	Language. Uses single-word utterances naming specific objects and classes of objects (animate and inanimate) or expressing a relational meaning (existence, nonexistence, disappearance, recurrence); uses successive single-word utterances; uses two-word combinations to express existence, negation, recurrence, attribution, possession, location, agent-action, action-object, agent-object
	Communication. Uses gestures to express intentions; uses gestures plus vocalization to communicate desires and direct the behavior of others; uses multiword utterances to perform a range of functions
II (MLU: 2.0-2.5)	Speech. Begins to follow phonological rules that provide for consistent speech performance
(Approx. age: 27-30 months)	Language. Begins producing morphemes: in, on, present progressive (-ing), regular plural (-s), irregular past tense, possessive ('s), uncontractible copula, articles, regular past (-ed), irregular third person, uncontractible auxiliary, contractible copula, contractible auxiliary; produces some pronouns (I, you, them, they, he/she, we, it)
	Communication. Responds to a conversational partner and engages in short dialogue; uses terms such as here and there to direct attention or to reference
III	Speech. Articulates all English vowels and the majority of consonants
(MLU: 2.5-3.0)	Language. Continues to experiment with and modify simple declarative sentences; begins to produce negative, interrogative, and imperative sentence forms

(Approx. age: 31-34 months)	Communication. Learns to become a better conversational partner, taking turns and using contingent queries and questions; uses a greater variety of forms to attain desired objects and services; can take the perspective of conversational partner
IV	Speech. May reduce or simplify words and consonant clusters
(MLU: 3.0-3.75)	Language. Produces questions in the adult form; produces embedded sentences and other complex constructions; uses negative contractions including isn't, aren't, doesn't, and didn't; uses the modal auxiliaries could, would, must, and might in negatives and questions
(Approx. age: 35-40 months)	Communication. Seems to have a better awareness of the social aspects of conversation; uses some indirect requests
V	Speech. Produces a few consonant clusters and blends
(MLU: 3.75-4.5)	Language. Has mastered regular and irregular past tense in most contexts; uses the third person singular and the contractible copula; inverts auxiliary verbs appropriately in questions; uses and and, later, if to conjoin clauses
(Approx. age: 41-46 months)	Communication. Switches codes (produces simplified utterances) for younger children; uses most deictic terms correctly; can talk about feelings and emotions; produces indirect requests in which the goal is embedded in a question or statement

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Source: L. McCormick. Communication disorders. M. N. Haring & L. McCormick (Eds.) Exceptional children and youth. Columbus: Charles E. Merrill, in press.

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VI. NOTES FROM DISCUSSION

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The general discussions were tape-recorded and transcribed as were the more formal presentations. However, in the transcriptions of the discussion it is not possible to identify the speakers in the free-flowing, rapid interaction. Recognizing the real possibility of distortions and ommisions, the editor has attempted to abstract the major ideas expressed.

* We have paid too much attention to developmental skills that are "nice but not necessary". We need to identify those skills that are essential to academic success in the early grades.
* We should identify some successful five-year-old children and then do research to find out what it is that makes them successful.
* The goal of preschools should not be to make kids successful in kindergarten and first grade. Preschools should serve as a bridge between the home and the school environment. This requires much parent involvement.
* Comprehensive evaluation of preschool programs should include evaluation of effects on the home and the family.
* Middle-class parents choose their children's preschools on the basis of what they (the parents) think the children need. Lower-class parents are not likely to have that freedom of choice. Others (usually middle-class teachers) will decide what their children need.
* Legislators and administrators also disenfranchise low-income parents by deciding what kinds of preschool programs to fund.
* One of our most serious problems in evaluating preschool programs is demonstrating long-term effects. How can you prove that something that

happens in the sixth grade was caused by a program feature at the preschool?

* We should evaluate the durability of preschool effects. For example, it is pretty easy to raise self-concept scores. These scores drop when kids begin to experience failure at academic tasks in later grades.
* A contrary view: We simply cannot immunize preschool children against later school failure. Preschool should be a good experience in itself without regard to long-term effects.
* To evaluate preschool programs we should come to some agreement about what the characteristics of a confident, competent four-year-old are. Then we would know what to count and measure.
* We teach the wrong things in preschool. We teach colors, numbers, shapes, and classifications. Kids do not care about that kind of stuff. They want to know where babies and rainbows come from, how to get to their grandmother's house, how to cook, and how to hike--real life.
* We should teach preschool children how to be successful kindergartners--how to become a teacher's pet, how to wait your turn, how to function as one kid among many in a room with only one adult.
* The evaluation of preschool programs cannot be based on longitudinal effects. We simply do not have the time to wait several years to see how our ideas turn out. Evaluation must look at what kinds of children we are sending to kindergarten.
* Evaluation should look for children who know the rules, who have enough friends, who are happy, and who are confident. These are the criteria of a successful program.

* We should collect spontaneous language samples of children talking with other children for evaluation purposes. We could then assess social skills, cognitive abilities, and general information levels.
* We should be careful to not confuse measurement for diagnostic purposes with assessment used for program evaluation. We need to hold programs accountable for the performance of their students according to some standard but we need to understand individual children so that we can design instruction for them.
* Tests are an important fact of school life. We should not hesitate to teach kids how to deal with them.
* We need to use commercially-developed, standardized tests because locally-developed ones are just plain poor quality. They are developed by amateurs who don't have the time, resources, or technical competence to develop credible instruments.
* We often complain that standardized tests do not measure what is really important. This may be especially important in a place such as Kamehameha Schools. If so, we really have no excuse for not developing assessment instruments we believe in. We should put more effort into the development of the case study as an assessment device.
* The one thing we should not try to do is raise I.Q. scores. These scores have only one value--and that is politcal. They do not measure anything we want to teach, they do not tell us anything about how to design a curriculum, and they do not endure. Preschool inflated I.Q.s have been called marshmallow scores. They are just puffed up at age four. Without substance, they go back down at age five.

* If we can develop a preschool program that will send kids to school and do well there, no one will care about their I.Q.s.
* We need to be able to tell people what makes a difference. Different things will make a difference with different kinds of kids. Program evaluation should tell us what works with which children.